REMARKS

The Office Action dated December 11, 2002 has been carefully considered. Claims 12, 17, 36 and 37 have been amended. Claims 13, 18 and 32 have been cancelled. Claims 12-14, 15, 17, 19, 20 and 33-40 are in this application.

The previously present claims were rejected under 35 U.S.C. § 102 as anticipated or under 35 USC §103 as obvious in view of previously cited U.S. Patent No. 3,799,146 to John et al. Applicant submits that this reference does not teach or suggest the invention defined by the present claims.

Claims 12, 17, 36 and 37 have been amended to include the limitations of claim 13 or 32 wherein the tones in the pattern of sonic variations are an alpha rhythm base line tone or a tonal variation from the baseline tone. Support for this amendment is found throughout the specification and in particular on page 7, lines 8-10.

John et al. disclose an instrument for testing the hearing of a subject. A group of tones at selected frequencies are played to the subject. The loudness level of the tones can be increased. Electrodes detect the subjects' brainwaves which are revoked responses to the tones. The brainwaves are analyzed to display a profile of the subjects' hearing ability.

In contrast to the invention defined by the present claims, John et al. do not teach or suggest a method for adjusting cognitive function in a postnatal human or improving cognitive function in a premature baby by determining a pattern of sonic variations in alpha rhythm comprising a plurality of tones repeated at a predetermined tempo in order to adjust cognitive function of an individual, as defined by the present claims. To the contrary, John et al. teach an instrument for testing hearing of a subject in which loudness of the tones are adjusted, but there is no teaching or suggestion of repeating the pattern at a predetermined tempo. In contrast, the system of the present invention operates at a constant value in which loudness is not adjusted, before, during or after use. Applicants point out that tempo is not equated with frequency as described by John et al. The present invention does not successively increase frequency or loudness as described in John et al. Rather, in the present invention, a specific pattern of tones are repeated at a particular tempo during a single usage as described on page 6, lines 1-14 of the

application. There is no teaching or suggestion in John et al. of determining variations in alpha rhythm as a sequence of tones repeated at a predetermined tempo. Further, the present invention is not directed to looking for responses at a frequency and level of loudness, but rather is directed to adjustment of cognitive function.

In addition, John et al. do not teach or suggest that the sequence of tones is a pattern of sonic variations in an alpha rhythm baseline tone or a tonal variation from the baseline tone. There is not teaching or suggestion in John et al. of an alpha rhythm baseline tone. Instead, John et al. teach a baseline loudness and frequency which has no relationship to alpha rhythm. As described on page 7, lines 11-15, transmitting sonic variations in alpha rhythm of the present invention to a postnatal human or premature baby has the advantages of accelerating or deaccelerating cortical alpha rhythms for improving cognitive performance such as overcoming tiredness, mitigating depression, reducing stress and hypertension and calming hyperactivity. Moreover, there is no teaching or suggestion in John et al. that improvement of cognitive function can be achieved by transmitting a sequence of tones is a pattern of sonic variations in an alpha rhythm baseline tone or a tonal variation from the baseline tone. Applicant submits there is no motivation to one or ordinary skill in the art to use the John et al. device directed to measuring hearing ability for improving cognitive function since the needed sonic pattern for improving cognitive function is not described in John et al. Accordingly, the invention defined by the present claims is not anticipated or obvious in view of John et al.

In view of the foregoing, Applicant submits that all pending claims are in condition for allowance and requests that all claims be allowed. The Examiner is invited to contact the undersigned should she believe that this would expedite prosecution of this application. It is believed that no fee is required. The Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 13-2165.

Respectfully submitted,

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MARKED-UP COPY OF AMENDED CLAIMS

12. (Twice Amended) A method for adjusting cognitive function of a postnatal human comprising the steps of:

determining a pattern of sonic variations in alpha rhythm, said pattern comprising a plurality of sequences of tones each sequence being repeated at a predetermined tempo; and

transmitting each of said sequences of tones in a soundwave form to said human during a predetermined period,

wherein a tempo at which each subsequent said sequence of tones is repeated is selected to be increased or decreased during the predetermined period thereby adjusting cognitive function of the postnatal human and said tones in said pattern of sonic variations are an alpha rhythm baseline tone or a tonal variation from said alpha rhythm baseline tone.

17. (Twice Amended) A method for improving the cognitive function of a premature baby comprising the steps of:

determining a pattern of sonic variations, said pattern comprising a plurality of sequences of tones, each sequence being repeated at a predetermined tempo; and

transmitting each of said sequences of tones in soundwave form to said premature baby during a predetermined period,

wherein a tempo at which each subsequent said sequence of tones is repeated is selected to be increased during the predetermined period thereby improving the cognitive function of the premature baby and said tones in said pattern of sonic variations are an alpha rhythm baseline tone or a tonal variation from said alpha rhythm baseline tone.

36. (Thrice Amended) A system for adjusting cognitive function of a postnatal human comprising:

means for determining a pattern of sonic variations, said pattern comprising a plurality of sequences of tones, each sequence being repeated at a predetermined tempo, said tones in said pattern of sonic variations are an alpha rhythm baseline tone or a tonal variation from said alpha rhythm baseline tone;

means for selecting each of said sequences of tones to be transmitted at a predetermined time during a predetermined period;

means for transmitting each of said sequences of tones in soundwave form to said human during said predetermined period; and

means for positioning a transmission means proximate to a forehead of said human and transmitting said sequence of tones aurally thereby adjusting cognitive function of the postnatal human.

37. (Thrice Amended) A system for increasing cognitive function of a premature baby comprising:

means for determining a pattern of sonic variations, said pattern comprising a plurality of sequences of tones, each sequence being repeated at a predetermined tempo, said tones in said pattern of sonic variations are an alpha rhythm baseline tone or a tonal variation from said alpha rhythm baseline tone in which subsequent sequences increase in tempo;

means for selecting each of said sequences of tones to be transmitted at a predetermined time; and

means for transmitting each of said sequences of tones in soundwave form to said premature baby thereby improving the cognitive function of the premature baby.